

# **EXHIBIT 33**

DR. KUMAR BELANI CONFIDENTIAL  
UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA

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In re Bair Hugger Forced Air Warming  
Products Liability Litigation

MDL NO. 15-2666  
(JNE/FLN)

This Document Relates To:  
All Actions

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\*\*\*CONFIDENTIAL\*\*\*

VIDEOTAPED DEPOSITION OF

DR. KUMAR BELANI

September 7, 2016

9:11 a.m.

Being held at: Children's Rehabilitation Center  
426 Church Street SE  
Minneapolis, MN

Reported by: Mari A. Skalicky  
Job No. 112500

Page 106

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 Q. Did Paul McGovern say anything in  
 3 particular at those meetings that you  
 4 remember?  
 5 A. No.  
 6 Q. What questions did you have of Mark  
 7 Albrecht once he approached you about  
 8 this?  
 9 A. Not -- I don't think I had very many  
 10 questions.  
 11 Q. You just said, "We'd be interested in  
 12 doing some research"?  
 13 A. No, I mean, I said the idea makes sense,  
 14 so let's do it.  
 15 Q. Do you still have Exhibit 4 in front of  
 16 you?  
 17 A. Yep. Yes.  
 18 Q. If you will turn to page 410, kind of  
 19 one-third down, first full paragraph. I'm  
 20 four sentences -- I'm four lines down. It  
 21 says, "Thus, we are unsure of the exact  
 22 degree of ventilation disruption that  
 23 might occur in a working OR during  
 24 orthopedic surgery." I read that  
 25 correctly. Right?

Page 108

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 Q. What's your understanding of the factual  
 3 basis for that statement?  
 4 A. Whatever is there is what's there.  
 5 Q. What's your understanding of the factual  
 6 basis for why -- why that's a part of the  
 7 discussion in the study?  
 8 A. Well, it's --  
 9 MS. CONLIN: Objection as to form.  
 10 A. It's pretty clear what the statement says.  
 11 BY MS. LEWIS:  
 12 Q. This was a lab exercise. Correct?  
 13 A. That's correct.  
 14 Q. Simulated?  
 15 A. That's correct. That's what --  
 16 Q. Test --  
 17 A. The editorial also says that.  
 18 Q. There, "No clinical correlation can be  
 19 reached from this study." Correct?  
 20 MS. CONLIN: Objection as to form.  
 21 A. That part, I can't tell you for sure  
 22 because it was a simulated study.  
 23 BY MS. LEWIS:  
 24 Q. Okay. One of the researchers --  
 25 reviewers -- I'm sorry. Not researchers.

Page 107

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. Where is that?  
 3 Q. Do you sort of see -- look at the first  
 4 paragraph.  
 5 A. Okay.  
 6 MR. DUNDER: Right there  
 7 (indicating).  
 8 A. Okay. Yeah.  
 9 BY MS. LEWIS:  
 10 Q. Did I read that correctly?  
 11 A. Yeah.  
 12 Q. And this was a study in which you were  
 13 looking to see whether bubbles would move  
 14 over the surgical field. Correct?  
 15 A. Correct.  
 16 Q. And one of the conclusions reached was,  
 17 "We are unsure of the exact degree of  
 18 ventilation disruption that might occur in  
 19 a working OR during orthopedic surgery."  
 20 Correct?  
 21 A. That's in the discussion, yeah.  
 22 Q. Right.  
 23 A. Not in the results.  
 24 Q. Did you author that particular sentence?  
 25 A. Don't remember.

Page 109

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 One of the reviewers of this study, one of  
 3 the comments was that no clinical  
 4 correlation could be reached. Correct?  
 5 A. We didn't do a clinical correlation.  
 6 Q. And so no clinical correlation can be  
 7 reached from this study? That's what my  
 8 question is. Is that right?  
 9 MS. CONLIN: Same objection.  
 10 A. We didn't -- we didn't do a clinical  
 11 correlation, so I cannot tell you whether  
 12 it can be reached or not reached.  
 13 BY MS. LEWIS:  
 14 Q. And it was a simulated study; therefore,  
 15 not real world, what would happen in a  
 16 real orthopedic OR, doing an actual  
 17 orthopedic surgery. Correct?  
 18 MS. CONLIN: Same objection.  
 19 A. It's like a flight simulator. When you  
 20 try to go through a flight simulator, it's  
 21 as close as we can get, so it's the same  
 22 thing.  
 23 BY MS. LEWIS:  
 24 Q. But it was not like what would happen in a  
 25 actual orthopedic OR. Is that right?

Page 110

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. It's --  
 3 MS. CONLIN: Asked and answered.  
 4 A. It's the same thing; if -- when you have a  
 5 flight simulator, and when you have a real  
 6 life situation, hopefully the simulator  
 7 would try to mimic the real life.  
 8 BY MS. LEWIS:  
 9 Q. For example, the orth -- number one,  
 10 there'd be an orthopedic surgeon in the  
 11 room. Correct?  
 12 A. That's what we've said. In the next  
 13 statement, I think it says that. Right?  
 14 Q. So in your simulated test, you did not  
 15 have an orthopedic surgeon present.  
 16 Correct?  
 17 A. We should have had, and that might have  
 18 actually made it worse. We might have had  
 19 more bubbles going to the surgical field.  
 20 Q. My question is, you did not have an  
 21 orthopedic surgeon present. Correct?  
 22 A. That's correct, but like I said --  
 23 Q. The anesthesia person --  
 24 MS. CONLIN: I don't think the  
 25 witness was done with his answer.

Page 112

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. Usually not.  
 3 Q. If they need to come in, they're going to  
 4 come into the room?  
 5 MS. CONLIN: Calls for speculation.  
 6 BY MS. LEWIS:  
 7 Q. Is that right?  
 8 A. If they need to come in, yeah, they will  
 9 come in.  
 10 Q. If a CRNA or another anesthesiologist  
 11 needs to come and take your place, that  
 12 person has to come in the room. Correct?  
 13 A. We try to minimize that.  
 14 Q. If they need to come in --  
 15 A. Yeah.  
 16 Q. -- to take your place, they've got to do  
 17 that.  
 18 A. They could --  
 19 Q. Right?  
 20 A. -- yeah. Because these are clean  
 21 surgeries, we have signs outside the door,  
 22 minimum traffic.  
 23 Q. And if they have to come in, they do so.  
 24 Right?  
 25 A. They do so, yeah.

Page 111

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 BY MS. LEWIS:  
 3 Q. The anesthesia person was standing still.  
 4 Correct?  
 5 A. Correct.  
 6 Q. In a real life orthopedic surgery, the  
 7 anesthesia person has to move around from  
 8 time to time. Correct?  
 9 A. As required, yeah.  
 10 Q. And --  
 11 A. Usually not, but usually they're on the  
 12 head end.  
 13 Q. During an orthopedic surgery, you're going  
 14 to have one or two scrub technicians  
 15 present. Correct?  
 16 A. Scrub nurse, yeah.  
 17 Q. You're going to have one, as you mentioned  
 18 earlier, assistant, probably, with the  
 19 orthopedic surgeon. Correct?  
 20 A. That's correct.  
 21 Q. You're going to have a circulating nurse  
 22 in the room. Correct?  
 23 A. Correct.  
 24 Q. You may have lab personnel come in and out  
 25 of the room. Correct?

Page 113

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 Q. If the circulating nurse needs to go get  
 3 another supply, she's going to come in and  
 4 out of the room. Correct?  
 5 A. Usually not, but if they have to, they  
 6 have to.  
 7 Q. If the scrub tech needs an additional set  
 8 of sponges on the table, the circulating  
 9 nurse has to come put them on the table.  
 10 Correct?  
 11 A. Yeah. See, the thing is these are clean  
 12 surgeries, and we try to minimize traffic  
 13 and movement as much as possible except  
 14 for what the surgeon is doing, and as  
 15 required to make the surgery go safely.  
 16 But in-and-out flow, we try to minimize  
 17 that.  
 18 Q. And if the circulating nurse needs to put  
 19 additional sponges on the table --  
 20 A. They usually --  
 21 Q. -- for use, then she'll -- she'll --  
 22 she'll have to do that. Correct?  
 23 A. They try to keep all the things needed.  
 24 Because these are routine surgeries, they  
 25 know exactly what's needed, so everything

Page 114

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 is available on the table, and they do  
 3 what's needed. To leave the table and go  
 4 look for something else doesn't happen.  
 5 Q. The circulating nurse doesn't leave the  
 6 table. I'm saying if she needs to go get  
 7 some extra sponges.  
 8 A. Usually not, because this is routine  
 9 surgery.  
 10 Q. And if she needs to, she'll have to go do  
 11 that. Right?  
 12 A. Rarely.  
 13 MS. CONLIN: Asked and answered.  
 14 BY MS. LEWIS:  
 15 Q. I understand. But you haven't answered  
 16 the question. Does she have to do that?  
 17 A. If anything needs to be done, it will be  
 18 done.  
 19 Q. Correct.  
 20 A. So they will go.  
 21 Q. So, in other words, there is movement  
 22 within the room --  
 23 A. Yeah.  
 24 Q. -- during the orthopedic surgery.  
 25 Correct?

Page 116

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 during an orthopedic surgery. Correct?  
 3 A. As needed.  
 4 Q. And that wasn't used and on during your  
 5 test.  
 6 A. Mm-hmm.  
 7 Q. Correct?  
 8 A. Correct.  
 9 Q. The anesthesia monitors were not on during  
 10 your test. Correct?  
 11 A. Monitors? I'm not -- I don't remember.  
 12 Q. Let's go back to page -- the same page, at  
 13 the beginning of that first paragraph it's  
 14 noted, "It is worth mentioning, however,  
 15 that the observed disruption was dependent  
 16 on our exact setup (arrangement of  
 17 draping, lights, and personnel), which did  
 18 not include the presence of instrument  
 19 trays and a working surgical team." Did I  
 20 read that correctly?  
 21 A. Correct.  
 22 Q. So that's saying that if there was a  
 23 different setup, then what you would have  
 24 observed -- what you would have observed  
 25 would have been different. Correct?

Page 115

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. Yeah.  
 3 Q. And that didn't happen in the testing --  
 4 A. It was not --  
 5 Q. -- that you did. Correct?  
 6 A. That was not what we intended to do --  
 7 Q. And it wasn't --  
 8 A. -- so that's why we didn't do it.  
 9 Q. And that's not a part of the testing that  
 10 you did. Correct?  
 11 A. Correct.  
 12 Q. In a normal -- during a normal procedure,  
 13 the surgical lights would be on. Correct?  
 14 A. Correct.  
 15 Q. And they were turned off in part of your  
 16 test. Correct?  
 17 A. For a few seconds, yeah.  
 18 Q. During a real orthopedic surgery, the  
 19 anesthesia monitor is going to be turned  
 20 on. Correct?  
 21 A. Correct.  
 22 Q. And that machine is going to generate  
 23 heat, or do you know?  
 24 A. It should, yeah.  
 25 Q. The electric cautery is going to be used

Page 117

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. May have. May have been.  
 3 MS. CONLIN: Objection to form.  
 4 BY MS. LEWIS:  
 5 Q. May have been?  
 6 A. May have been, yeah.  
 7 Q. In other words, if the surgical light was  
 8 in a different place than where you had  
 9 it, then you may have seen a different  
 10 ventilation pattern. Correct?  
 11 A. May have.  
 12 Q. If the anesthesia person had been moving  
 13 instead of motionless, you may have seen a  
 14 different ventilation pattern. Correct?  
 15 A. May have.  
 16 Q. If a surgeon had been present next to the  
 17 operating table, you would have seen a  
 18 different ventilation pattern. Right?  
 19 A. May have.  
 20 Q. If the lights had stayed on instead of  
 21 being turned off, you may have seen a  
 22 different ventilation pattern. Right?  
 23 A. Unlikely, because we just turned it off  
 24 for the picture, which is a few seconds.  
 25 Q. If the drape had been put on a different

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. This is -- Exhibit 13 carries my  
 3 biography, CV.  
 4 Q. Okay. And I understand that this was  
 5 updated for the purposes of your testimony  
 6 here today?  
 7 A. Yeah.  
 8 Q. And, in fact, it lists, amongst other  
 9 things, your various positions at the  
 10 university, as well as your current  
 11 memberships and offices and professional  
 12 organizations. Correct?  
 13 A. Correct.  
 14 Q. And it also lists, if we could take a look  
 15 Dr. Belani, at page 6 of Exhibit 11; it's  
 16 got some publications. The first group is  
 17 entitled "peer-reviewed publications." Do  
 18 you see that?  
 19 A. Correct.  
 20 Q. And you have some 91 peer-reviewed  
 21 publications. Is that correct, Doctor?  
 22 A. Correct.  
 23 Q. And then you've got in your CV,  
 24 nonpeer-reviewed publications. Do you see  
 25 that, sir?

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 by other people, but sent out for -- as --  
 3 as an expert opinion.  
 4 Q. Okay. And with respect to Belani --  
 5 Dr. Belani Deposition Exhibits 4, 5, and  
 6 6, the ones with whom you were -- or you  
 7 were discussing with counsel for 3M, are  
 8 those peer-reviewed or nonpeer-reviewed  
 9 publications?  
 10 A. Peer-reviewed.  
 11 Q. Okay. And -- and they are listed, in  
 12 fact, on your CV under peer-reviewed  
 13 publications. Correct?  
 14 A. Correct.  
 15 Q. And so did those three publications  
 16 undergo the process that you've described?  
 17 A. Correct.  
 18 Q. Okay. Do you try, Dr. Belani, to uphold  
 19 yourself to a high scientific and medical  
 20 standard?  
 21 A. I do.  
 22 Q. Okay. And do you stand behind the  
 23 protocols and work which resulted in  
 24 Belani Deposition Exhibits 4, 5, and 6?  
 25 MS. LEWIS: Objection to form.

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. Correct.  
 3 Q. And you've got approximately 52 of those  
 4 listed on your CV, Exhibit 11?  
 5 A. Correct.  
 6 Q. Okay. What is the difference between a  
 7 peer-reviewed publication and  
 8 nonpeer-reviewed publication?  
 9 A. Peer-reviewed means it goes to a group  
 10 of -- of reviewers who are experts in the  
 11 field that I don't have any relationship  
 12 with, and they suggest whether the article  
 13 is worthwhile publishing or not.  
 14 Q. Okay.  
 15 A. And they also give some edits and send it  
 16 back with some queries.  
 17 Nonpeer-reviewed is where, like this  
 18 one that I'm doing, "Practical Reviews in  
 19 Anesthesiology," it's something that I  
 20 edit, and I get articles from -- like,  
 21 from different anesthesiologists in the  
 22 field, and then we put it together and  
 23 send it out.  
 24 And then I also review some of the  
 25 current literature, and it's not reviewed

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. I do.  
 3 BY MS. CONLIN:  
 4 Q. Okay. Now, as part of the preparation for  
 5 you coming here today, you actually signed  
 6 a protective order in that -- in this  
 7 case. Is that correct? I think it's  
 8 Exhibit No. 3 in front of you.  
 9 MS. LEWIS: His signature is No. 2.  
 10 A. Is that the one where I'm supposed --  
 11 MS. LEWIS: Protective Order.  
 12 A. -- to keep quiet? Yeah.  
 13 BY MS. CONLIN:  
 14 Q. And is that your signature --  
 15 A. That's correct.  
 16 Q. -- on Belani Exhibit No. 2?  
 17 A. Correct.  
 18 Q. And you understand that, by signing that,  
 19 what -- if I show you things that are  
 20 otherwise confidential, you need to  
 21 maintain that confidentiality with respect  
 22 to those?  
 23 A. Okay. The only question I had was how  
 24 long? How long is that to be the case?  
 25 Q. Until -- well, we -- we could have a long

Page 222

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 argument about that, but for the purposes  
 3 of today, I don't think I'm going to show  
 4 you anything too controversial, but I  
 5 would like to take you through a few  
 6 documents.  
 7 A. Okay.  
 8 Q. Now, if we can take a look first at Belani  
 9 Deposition Exhibit No. 4, which is the  
 10 peer-reviewed article of which you are the  
 11 lead author, entitled, "Patient Warming  
 12 Excess Heat, the Effects on Orthopedic  
 13 Operating Room Ventilation Performance"?  
 14 Do you see that?  
 15 A. Correct.  
 16 Q. And if we could take a look, Doctor, at  
 17 the last page of this article, right  
 18 before the disclosures?  
 19 A. Yes.  
 20 Q. Okay. You and your co-authors write,  
 21 quote, "Therefore, it seems that future  
 22 research is warranted to characterize the  
 23 clinical conditions under which forced-air  
 24 warming excess heat results in ventilation  
 25 disruption during surgery." Do you see

Page 223

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 that?  
 3 A. I do.  
 4 Q. Okay. Now, when this -- following the  
 5 publication of Belani Exhibit No. 4, were  
 6 you contacted by 3M at any point in time  
 7 regarding perhaps further research that  
 8 needed to be performed?  
 9 A. To date, they have not.  
 10 Q. Okay. They didn't contact you and say,  
 11 "you know, Dr. Belani, we would like to  
 12 fund a study where we actually have a  
 13 simulation where the nurse goes to get  
 14 additional sponges that she forgot in the  
 15 other room"? Did they contact you about  
 16 that?  
 17 A. No, they have not.  
 18 Q. Did they ever suggest to the U of M that  
 19 they would fund further research in these  
 20 areas that you indicated -- you and your  
 21 co-authors indicated might be explored  
 22 further clinically?  
 23 A. To my knowledge, no.  
 24 Q. Okay. And you know folks over at 3M.  
 25 Correct, Doctor?

Page 224

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 A. Oh, yeah. I just had an email with one of  
 3 them yesterday. They're bringing a group  
 4 of Chinese physicians to come and work and  
 5 visit our operating rooms to see how we do  
 6 things, so I was going to coordinate that  
 7 visit for them.  
 8 Q. And --  
 9 A. I have many contacts with 3M.  
 10 Q. And as an example, you know Michelle  
 11 Stevens well. Correct?  
 12 A. Right.  
 13 Q. And you've had -- and -- and can you  
 14 describe your sort of relationship with  
 15 Dr. Stevens?  
 16 A. It's Michelle Hulse. Is that the one?  
 17 Q. Yes.  
 18 A. She's an infectious disease specialist,  
 19 and I -- I collaborated with her in  
 20 getting a workshop conducted at one of the  
 21 biggest hospitals in India to promote 3M  
 22 infection control measures that can be  
 23 used in the operating room.  
 24 Q. Has -- Dr. Hulse Stevens, has she ever  
 25 talked to you about your studies and work

Page 225

1 DR. KUMAR BELANI CONFIDENTIAL  
 2 regarding the Bair Hugger that are  
 3 reflected in Belani Exhibits 4, 5, and 6?  
 4 A. No, she has not.  
 5 Q. Were you aware, Doctor, that 3M did both  
 6 internal critiques of your various studies  
 7 as well as made comments about them  
 8 publicly?  
 9 A. I'm not aware.  
 10 Q. Okay.  
 11 (Exhibit No. 14 was marked for  
 12 identification by the Court Reporter.)  
 13 BY MS. CONLIN:  
 14 Q. I've handed you, Doctor, what Ms. Skalicky  
 15 has marked as Belani Deposition Exhibit  
 16 No. 12 --  
 17 MS. LEWIS: We've already got it.  
 18 A. 14.  
 19 BY MS. CONLIN:  
 20 Q. Oh, 13.  
 21 A. 14.  
 22 Q. 14. Thank you.  
 23 THE REPORTER: It should be 14.  
 24 A. Yeah, 14.  
 25 BY MS. CONLIN: